Appl. No. Filed



metallized holes formed as truncated cones in the upper-lying connection layer, the narrower bases of the truncated cones being faced to the contact pads of the underlying connection layer, and the wider bases of the truncated cones being coupled with the conductive paths on the upper side of the upper-lying connection layer.

- 10. (New) The multilayered connection plate according to Claim 9, wherein the contact pads are flat.
- 11. (New) The multilayered connection plate according to Claim 9, wherein the upper bases of the truncated cones coupled with the conductive paths on the surface of the connection layer are made with metallized rims around the periphery of the bases.
- 12. (New) The multilayered connection plate according to Claim 11, wherein the diameter D of the greater base of the truncated cone, the width h of the metallized rim, the diameter d of the lesser base of the truncated cone, the thickness t of the dielectric material of the connection layer and the minimal width L of the respective contact pad on the underlying connection layer are coupled with the following relationship:

$$L \ge D + 2h = d + 2t + 2h$$
.

- 13. (New) A multilayered connection plate, comprising:
- a plurality of layers of a dielectric material with conductive paths on their surfaces, the layers being connection layers; and
- a plurality of contact nodes in the form of metallized contacts mutually aligned and interconnected electrically and mechanically by conductive binding material, wherein the conductive paths are placed on both sides of every connection layer and interconnected with metallized through holes within every layer, insulating layers with metallized through holes are placed between the connection layers, and the contact nodes comprise metallized holes in the form of truncated cones made in the upper-lying connection layer, metallized through holes in the insulating layer, and contact pads coupled by conductive binding material on the underlying connection layer, the lower bases of the truncated cones being joined with the upper bases of metallized through holes of the insulating layer, and the lower bases of the through holes are joined with the contact pads of the underlying connection layer, coupled with the conductive paths on the upper side of the underlying connection layer, the upper bases of the truncated cones

Appl. No. Filed

: Onown : Herewith

being coupled with the conductive paths placed on the upper side of the upper-lying connection layer.

- 14. (New) The multilayered connection plate according to Claim 13, wherein the contact pads are flat.
- 15. (New) The multilayered connection plate according to Claim 13, wherein the upper and lower bases of the truncated cones coupled with the conductive paths on the surfaces of every connection layer are made with metallized rims around the periphery of the bases.
- 16. (New) The multilayered connection plate according to Claim 13, wherein the metallized through holes of the insulating layers are made in the form of cylinders with metallized rims being formed around the periphery of the upper and lower bases.
  - 17. (New) A multilayered connection plate, comprising:a first connection layer having a conductive path on a surface thereof;
- a second connection layer deposited adjacent to the first connection layer having a conductive path on a surface thereof;

a first node provided through the first connection layer and having a metallized hole, an inner surface of which is connected to the conductive path of the first connection layer, and a contact pad connected with the conductive path of the second connection layer, wherein a conductive binding material is deposited in the metallized hole to be in contact with the inner surface of the metallized hole and the contact pad so as to form a connection between the first and second connection layers;

a third connection layer deposited adjacent to the second connection layer having a conductive path on a surface thereof; and

a second node provided through the second connection layer having a metallized hole, an inner surface of which is connected to the conductive path of the second connection layer, and a contact pad connected with the conductive path of the third connection layer, wherein a conductive binding material is deposited in the metallized hole to be in contact with the inner surface of the metallized hole and the contact pad so as to form connection between the second and third connection layers.

18. (New) A multilayered connection plate, comprising: a first connection layer having a conductive path on a surface thereof; an insulating layer deposited adjacent to the first connection layer

Cont

Cont A)

The state of the s

Appl. No. Filed : Inown

a second connection layer deposited adjacent to the insulating layer and opposite to the first connection layer and having a conductive path on a surface thereof; and

a node provided through the first connection layer and the first insulating layer and having a metallized hole provided through the first connection layer, an inner surface of which is connected to the conductive path of the first connection layer, a metallized through hole provided through the first insulating layer, and a contact pad connected with the conductive path of the second connection layer, wherein a conductive binding material is deposited in the metallized hole and the metallized through hole to be in contact with each inner surface of the metallized hole and the metallized through hole and the contact pad so as to form connection between the first and second connection layers.

19. (New) The multilayered connection plate according to Claim 18, further comprising:

a second insulating layer deposited adjacent to the second connection layer and opposite to the first insulating layer;

a third connection layer deposited adjacent to the second insulating layer and opposite to the second connection layer; and

aother node provided through the second connection layer and the second insulating layer and having a metallized hole provided through the second connection layer, an inner surface of which is connected to the conductive path of the second connection layer, a metallized through hole provided through the second insulating layer, and a contact pad connected with the conductive path of the third connection layer, wherein a conductive binding material is deposited in the metallized hole and the metallized through hole to be in contact with each inner surface of the metallized hole and the metallized through hole and the contact pad so as to form connection between the second and third connection layers.